Form PTO-1449 (modified)

Atty. Docket No. CMPQ:002/P1319

Serial No. 08/995,030

List of Patents and Publications for Applicant's

Applicant

Richard Knox-and Austin-Huang-

INFORMATION DISCLOSURE STATEMENT

Filing Date:

Group:

(Use several sheets if necessary)

12/19/97

Unknown

U.S. Patent Documents

See Pages 1 and 2

Foreign Patent Documents
See Page 2

Other Art See Pages 2 - 4

#### **U.S. Patent Documents**

| Exam.<br>Init. | Ref.<br>Des. | Document<br>Number | / Date   | Name            | Class | Sub<br>Class | Filing Date of App. |
|----------------|--------------|--------------------|----------|-----------------|-------|--------------|---------------------|
| 1              | A1           | 4,799,137          | 1/17/89  | Aho             | 362   | 309          |                     |
| 1              | A2           | 4,874,228          | 10/17/89 | Aho et al.      | 350   | 345          |                     |
| F              | A3 ·         | 5,054,885          | 10/8/91  | Melby           | 359   | 618          |                     |
|                | A4           | 5,083,857          | 01/28/92 | Hornbeck        | 359   | 291          |                     |
|                | A5           | 5,122,905          | 6/16/92  | Wheatley et al. | 359   | 586          |                     |
|                | A6           | 5,122,906          | 6/16/92  | Wheatley        | 359   | 586          |                     |
|                | A7           | 5,148,157          | 09/15/92 | Florence        | 340   | 783          |                     |
|                | A8           | 5,190,370          | 3/2/93   | Miller et al.   | 362   | 340          |                     |
|                | A9           | 5,225,823          | 7/6/93   | Kanaly          | 340   | 793          |                     |
|                | A10          | 5,233,385          | 08/03/93 | Sampsell        | 355   | 35           |                     |
|                | A11          | 5,313,479          | 05/17/94 | Florence        | 372   | 26           |                     |
|                | A12          | 5,381,309          | 1/10/95  | Borchardt       | 362   | 31           | -                   |
|                | A13          | 5,404,076          | 4/4/95   | Dolan           | - 313 | 572          |                     |
|                | A14          | 5,404,171          | 4/4/95   | Golstein et al. | 348   | 459          |                     |
|                | A15          | 5,416,618          | 05/16/95 | Juday           | 359   | 53           |                     |
|                | A16          | 5,453,859          | 9/26/95  | Sannohe et al.  | 359   | . 63         | 1 2 1               |
|                | A17          | 5,467,146          | 11/14/95 | Huang et al.    | 348   | 743          |                     |
|                | A18          | 5,471,584          | 11/28/95 | Blaxtan et al.  | 359   | .263         |                     |
|                | A19          | 5,486,949          | 1/23/96  | Schrenk et al.  | 359   | 498          |                     |
|                | A20          | 5,504,391          | 4/2/96   | Turner et al.   | 313   | 570          |                     |
|                | A21          | 5,508,841          | 04/16/96 | Lin et al.      | 359   | 318          |                     |
| 1//            | A22          | 5,523,881          | 06/04/96 | Florence et al. | 359   | 561          | ı                   |

**EXAMINER:** 

DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

| Form PTO-1449 (modified)             |             | Atty. Docket No.    | Serial No.      |  |
|--------------------------------------|-------------|---------------------|-----------------|--|
|                                      |             | CMPQ:002/P1319      | 08/995,030      |  |
| List of Patents and Publications for | Applicant's | Applicant           |                 |  |
|                                      |             | Richard Knox and Au | stin Huang      |  |
| INFORMATION DISCLOSURE STATEMENT     |             |                     |                 |  |
|                                      |             | Filing Date:        | Group:          |  |
| (Use several sheets if necessary)    |             | 12/19/97            | Unknown         |  |
| U.S. Patent Documents                | Foreign P   | atent Documents     | . Other Art     |  |
| See Pages 1 and 2                    |             | ee Page 2           | See Pages 2 - 4 |  |

### **U.S. Patent Documents**

| Exam.<br>Init. | Ref.<br>Des. | Document<br>Number | Date     | Name            | Class | Sub<br>Class | Filing Date of App. |
|----------------|--------------|--------------------|----------|-----------------|-------|--------------|---------------------|
| M              | A23          | 5,555,324          | 09/10/96 | Waxman et al.   | 382   | 254          | _                   |
| 7              | A24          | 5,606,220          | 2/25/97  | Dolan et al.    | . 313 | 637          | 1/9/95              |
|                | A25          | 5,612,820          | 3/18/97  | Schrenk et al.  | 359   | 498          | 5/30/95             |
|                | A26          | 5,626,800          | 5/6/97   | Williams et al. | 264   | 1.38         | 2/3/95              |
|                | A27          | 5,642,129          | 6/24/97  | Zavracky et al. | 345   | 100          | 3/23/94             |
|                | A28          | 5,670,842          | 9/23/97  | Dolan et al.    | 313   | 570          | 5/10/95             |
| 79             | A29          | 5,682,080          | 10/28/97 | Dolan et al.    | 313   | 570          | 10/30/96            |
| V              | A30          | 5,686,793          | 11/11/97 | Turner et al.   | 313   | 570          | 3/25/96             |

## Foreign Patent Documents

| Exam.<br>Init. | Ref.<br>Des. | Document<br>Number | Date | Country | Class | Sub<br>Class | Translation<br>Yes/No |
|----------------|--------------|--------------------|------|---------|-------|--------------|-----------------------|
|                | Bl           |                    |      |         |       |              | ·                     |
|                | B2           | · ·                |      |         |       |              |                       |

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

| Exam.<br>Init. | Ref.<br>Des. | Citation   |
|----------------|--------------|--|
| 10             | CI           | "Chapter 8 - Liquid Crystal Displays," pp. 181-251   |
| M              | C2           | "Optics for Image Disposition Systems"   |
| <i>k</i>       | C3           | Baur, T. et al., "High Performance Liquid Crystal Device Suitable for Projection Display," SPIE Vol. 2650, pp. 226-228 (July 1996) |
|                | ) C4         | Displaytech, Inc., "FLC/VLSI Display Technology" (December 1, 1995)  |

| EXAMINER: | DATE CONSIDERED: | 7/4/05 |  |
|-----------|------------------|--------|--|

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

| Form PTO-1449 (modified)             |             | Atty. Docket No.         | Serial No.        |  |
|--------------------------------------|-------------|--------------------------|-------------------|--|
| •                                    |             | CMPQ:002/P1319           | 08/995,030        |  |
| List of Patents and Publications for | Applicant's | Applicant                |                   |  |
| INFORMATION DISCLOSURE S             | TATEMENT    | Richard Knox and Au      | stin Huang        |  |
| (Use several sheets if necessary)    |             | Filing Date:<br>12/19/97 | Group:<br>Unknown |  |
| U.S. Patent Documents                | Foreign     | Patent Documents         | Other Art         |  |
| See Pages 1 and 2                    |             | See Page 2               | See Pages 2 - 4   |  |

# Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

| Exam.<br>Init. | Ref.<br>Des. | Citation   |
|----------------|--------------|--|
| $\mathcal{P}$  | C5           | Gambogi, W., et al., "HOE Imaging in DuPont Holographic Photopolymers," Proc. SPIE, "Diffractive and Holographic Optics Technology," Vol. 2152 (1994)  |
|                | C6           | Gambogi, W.J. et al., "Advances and Applications of DuPont Holographic Photopolymers," Optics Quebec '93, Conf. 2043, "Holographic Imaging and Materials" (August 1993)                                  |
| D              | C7           | Gambogi, W.J. et al., "Color Holography Using DuPont Holographic Recording Films," Proc. SPIE, "Holographic Materials," Vol. 2405 (February 1995)  |
| n              | C8           | Gambogi, W.J. et al., "Diffractive Printing Methods Using Volume Holograms," IS&T/SPIE 1993 Int'l Conf. on Electronic Imaging, conf. 1914 (1993)   |
|                | С9           | Gambogi, W.J. et al., "Holographic Transmission Elements Using Improved Photopolymer Films," SPIE Vol. 1555 Computer and Optically Generated Holographic Optics (Fourth in a Series), pp. 256-266 (1991) |
| D              | C10          | HANDBOOK OF OPTICS, Vol. II, Devices, Measurements, and Properties, "Chapter 3 – Polarizers"   |
| D              | C11          | Jack M. Younse, "Projection Display Systems Based on the Digital Micromirror Device (DMD)," SPIE Proceedings Reprint, Vol. 2641, pp. 64-75 (July 1995)   |
| 1              | C12          | Joubert, C. et al., "Dispersive Holographic Microlens Matrix for Single LCD Projection."   |
|                | C13          | Larry J. Hornbeck, "Digital Light Processing and MEMS: Timely Convergence for a Bright Future," presented at Micromachining and Microfabrication '95 (October 23-24, 1995)                               |
|                | C14          | Parfenov, A.V. and Putilin, A.N., "Advanced Optical Schemes with Liquid Crystal Image Converters for Display Applications," SPIE Vol. 2650, pp. 173-179 (July 1996)                                      |
| Ø              | . C15        | Tipton, D. et al., "Improved Process of Reflection Holography Replication and Heat Processing," Proc. SPIE, "Practical Holography VIII, Materials and Processing," Vol. 2176 (February 1994)             |
|                | C16          | Weber, A.M. et al., "Hologram Recording in DuPont's New Photopolymer Materials," Practical Holography IV, SPIE OE/Lase Conference Proceedings, 1212-04 (January 1990)                                    |

| EXAMINER: | DATE CONSIDERED: 7/1/1/3 |
|-----------|--------------------------|
| EVALORIED |                          |

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609, DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

| Form PTO-1449 (modified)             |             | Atty. Docket No.    | Serial No.      |  |
|--------------------------------------|-------------|---------------------|-----------------|--|
|                                      |             | CMPQ:002/P1319      | 08/995,030      |  |
| List of Patents and Publications for | Applicant's | Applicant           |                 |  |
|                                      |             | Richard Knox and Au | stin Huang      |  |
| Information Disclosure Statement     |             |                     |                 |  |
|                                      |             | Filing Date:        | Group:          |  |
| (Use several sheets if necessary)    |             | 12/19/97            | Unknown         |  |
| U.S. Patent Documents                | Foreign I   | Patent Documents    | Other Art       |  |
| See Pages 1 and 2 Se                 |             | ee Page 2           | See Pages 2 - 4 |  |

## Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

| Exam.<br>Init. | Ref.<br>Des. | Citation  |
|----------------|--------------|---|
|                | C17          | Website: Applications of PDLCs                                      |
| •              |              | http://abatone.cwru.edu/tutorial/enhanced/files/pdlc/apps/apps.html |
|                | C18          | Website: New Rlat Panel Display Technologies                        |
|                |              | http://mambo.ucsc.edu/psl/cis_seminars/119610/19961017.html         |
| 1              | C19          | Website: Polymer Dispersed Liquid Crystals                          |
| 4              | / ·          | http://www.bell-labs.com/new/gallery/pdlc.html                      |
|                | C20 -        | Website: Polymer-dispersed LCDs                                     |
|                |              | http://stefan.www.media.mit.edu/people/stls/node9.htm (5/18/95)     |
|                | C21          | Website: Worldwide Flat Panel Display Markets and Trends            |
| IN             |              | http://www.electronictrendpubs.com/fpd.htm (March 1996)             |

| Examiner: | DATE CONSIDERED: |  |
|-----------|------------------|--|

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

| Notice of References Cited |              | 08/995,030               | Applicant(s)                      | Knox et al  |                |             |             |
|----------------------------|--------------|--------------------------|-----------------------------------|-------------|----------------|-------------|-------------|
|                            |              |                          | Examiner Robert J. Holling        | shead       | Group Art Unit |             | Page 1 of 1 |
|                            |              | U.S                      | S. PATENT DOCUMENTS               |             | <u> </u>       |             |             |
|                            | DOCUMENT NO. | DATE                     | . NAME                            |             |                | CLASS       | SUBCLASS    |
|                            | 5,414,546    | 5/95                     | Fergaso                           | n           |                | 359         | 73          |
| В                          | 5,381,253    | 1/95                     | Sharp et                          | aí          |                | 359         | 53          |
| J c                        | 5,381,250    | 1/95                     | Meadow                            | s           |                | 359         | 39          |
| VX/                        | 5,243,455    | 9/93                     | Johnson e                         | t al        |                | 359         | 93          |
| E                          | 5,231,521    | 7/93                     | Johnson e                         | t al        |                | 359 ·       | 93          |
| F                          | Ú            |                          |                                   |             |                |             | ,,          |
| G                          |              |                          |                                   |             |                |             |             |
| н                          |              |                          |                                   |             |                |             | oM1         |
| 1                          |              |                          |                                   |             |                | <del></del> | a 9 8       |
| J                          |              |                          |                                   |             | ·              |             |             |
| к                          |              |                          |                                   |             |                | <u> </u>    | 80          |
| L                          |              |                          |                                   |             |                |             | 3           |
| М                          |              |                          |                                   |             |                |             |             |
|                            |              | FOREI                    | GN PATENT DOCUMENTS               |             |                |             |             |
|                            | DOCUMENT NO. | DATE                     | COUNTRY                           | NAME        |                | CLASS       | SUBCLASS    |
| N                          |              |                          |                                   |             |                |             |             |
| 0                          |              |                          |                                   |             |                |             |             |
| Р                          |              |                          |                                   | <del></del> |                |             |             |
| a                          |              |                          |                                   |             |                |             |             |
| R                          |              |                          |                                   | -           |                |             |             |
| s                          |              |                          |                                   |             | - 4            | -           |             |
| т                          |              |                          |                                   | <del></del> |                |             |             |
|                            |              | NON                      | DATENT DOGUMENTO                  |             |                |             |             |
| т т                        |              |                          | -PATENT DOCUMENTS                 |             |                |             |             |
| + -                        |              | DOCUMENT (Including Auth | or, Tiue, Source, and Perunent Pa | ges)        |                | <u></u>     | DATE        |
| U                          |              | ,                        |                                   |             |                |             |             |
|                            |              |                          |                                   |             |                |             |             |
| v                          |              |                          |                                   |             |                |             |             |
|                            |              | •                        |                                   |             |                |             |             |
| w                          |              |                          |                                   |             |                |             |             |
| "                          |              |                          |                                   |             |                |             | .           |
| ++-                        |              |                          |                                   |             |                |             |             |
| x                          |              |                          |                                   |             |                |             |             |
|                            |              |                          | <del></del>                       |             |                |             |             |

| Notice of R | References | Cited |
|-------------|------------|-------|
|-------------|------------|-------|

Application No.

08/995,030

Examiner

Kenneth Parker

Applicant(s)

Knox et al

Group Art Unit

Page 1 of 1

| _      |     |                                       |               | U.S. PATENT DOCUM                 | ENTS             |       |                  |
|--------|-----|---------------------------------------|---------------|-----------------------------------|------------------|-------|------------------|
| $\top$ | ¥   | DOCUMENT NO.                          | DATE          |                                   | NAME             | CLASS | SUBCLASS         |
| +      |     | 5,568,283                             | 10/1996       | Mitsutake et al                   |                  |       | 74               |
| -      | +   | 5,615,025                             | 3/1997        | к                                 | aneko et al      | 349   | 74               |
| 1      | -   | A                                     |               |                                   |                  |       | _ *              |
|        | ,   |                                       | ·             |                                   |                  |       | - · <del>.</del> |
| +      | +   | 1)1                                   |               |                                   |                  |       | _                |
| ١,     | =   |                                       |               |                                   |                  |       |                  |
| 1      | 3   |                                       |               |                                   |                  |       | -                |
| 1      | 4   |                                       |               |                                   |                  |       | -                |
| 1      | •   |                                       |               |                                   |                  |       |                  |
| Ţ.     | ٠   |                                       |               |                                   |                  | :     |                  |
|        | Κ . |                                       |               |                                   | ·                |       |                  |
|        | L   |                                       |               |                                   |                  |       |                  |
| ١      | м   |                                       |               |                                   |                  | i     |                  |
|        |     |                                       |               | FOREIGN PATENT DOCL               | Γ                |       | -                |
| ŀ      |     | DOCUMENT NO.                          | DATE          | COUNTRY                           | NAME             | CLASS | SUBCLASS         |
|        | N   |                                       |               |                                   |                  |       |                  |
| I      |     |                                       |               |                                   |                  |       |                  |
|        | Р   |                                       |               |                                   |                  |       |                  |
|        | a   |                                       |               |                                   |                  |       |                  |
|        | R   |                                       |               |                                   |                  |       |                  |
|        | s   |                                       |               |                                   |                  | ·     |                  |
|        | т   |                                       |               |                                   |                  |       |                  |
|        |     |                                       |               | NON-PATENT DOCUM                  |                  |       | DATE             |
|        |     |                                       | DOCUMENT (Inc | duding Author, Title, Source, and | Pertinent Pages) |       | DATE             |
|        | U   |                                       |               |                                   | :                |       |                  |
|        | ·   |                                       |               |                                   |                  |       |                  |
|        | w   | · · · · · · · · · · · · · · · · · · · |               |                                   |                  |       |                  |
|        |     |                                       |               |                                   |                  |       |                  |
|        | x   |                                       | Λ             |                                   |                  | ,     |                  |

U. S. Patent and Trademark Office PTO-892 (Rev. 9-95)

Notice of References Cited

Part of Paper No.

19

### Notice of References Cited

Applicant/Patent Application/Control No. Knox et al 08/995,030 Examiner Art Unit Kenneth Parker 2871 Page 1 of 1

| US | PATENT | DOCUMENTS |
|----|--------|-----------|

| Document Number Date Country Code-Number-Kind Code MM-YYYY |           | Date<br>MM-YYYY¹ | Name           | Classification 2 |     |
|--|-----------|------------------|----------------|------------------|-----|
| А  | 4,466,702 | 8/1984           | Wiener-Avnear  | 349              | 75  |
| В  | 4,492,432 | 1/1985           | Kaufmann et al | 349              | 99  |
| O  | 1 5371618 | 12/1944          | Tui etal       | 349              | 78  |
| D  |           |                  |                |                  |     |
| E  |           |                  |                |                  | · · |
| F  |           |                  |                |                  |     |
| G  |           |                  |                |                  | •   |
| н  |           |                  |                |                  | •   |
| 1  |           |                  |                |                  |     |
| J  |           |                  |                |                  | 1   |
| к  |           |                  |                |                  |     |
| L  |           |                  | ·              |                  |     |
| м  |           |                  |                |                  |     |

#### **FOREIGN PATENT DOCUMENTS**

|   |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Country | Name | Classification <sup>2</sup> |  |
|---|---|--|-----------------|---------|------|-----------------------------|--|
|   | N |  |                 |         |      |                             |  |
|   | 0 |  |                 |         |      |                             |  |
|   | Р |  |                 | ·       |      |                             |  |
| П | a |  |                 |         |      |                             |  |
|   | R |  |                 |         | ·    |                             |  |
|   | s |  |                 |         |      | -                           |  |
|   | τ |  |                 |         |      |                             |  |

#### **NON-PATENT DOCUMENTS**

|   |   | Include, as applicable: Author, Title, Date, Publisher, Edition or Volu | me, Pertinent Pages |   |  |
|---|---|---|---------------------|---|--|
|   | U | · ·   |                     |   |  |
| L |   |   |                     |   |  |
|   | v | ·   |                     | - |  |
|   |   |   |                     |   |  |
|   | w |   |                     |   |  |
|   | × |   | •                   |   |  |

\* A copy of this reference is not being furnished with this Office action. See MPEP \$ 707.05(a). 1 Dates in MM-YYYY format are publication dates.

<sup>2</sup> Classifications may be U.S. or foreign.

U. S. Patent and Trademark Office PTO-892 (R v. 01-2001)

Notice of References Cited

Part of Paper No. 23